

REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated August 9, 2006, is respectfully requested in view of this amendment. By this amendment, claims 1, 2, 7-9, 11, 12, and 17 have been amended. Claims 1-17 are pending in this application, with claims 13-16 withdrawn from consideration.

The amendment to claim 1 sets forth the use of the spectral optical to provide an output of data resulting from an analysis of the spectral response and indicative of the quality of processing. Support is found throughout the original specification, *inter alia* at page 2, lines 16-23. Corresponding changes have been made to dependent claims 2, 7-9, 11 and 12, and these changes find support in the original specification as cited above. Claim 17 also has changes to set forth the use of the spectral optical to provide an output of data resulting from an analysis of the spectral response and indicative of the quality of processing. Similarly, these changes find support in the original specification as cited above. It is respectfully submitted that the above amendments introduce no new matter within the meaning of 35 U.S.C. §132.

In the outstanding Office Action, the Examiner rejected claims 1, 12 and 13 (withdrawn) under 35 U.S.C. §101, because the invention is directed to non- statutory subject matter, and claims 1-12 and 17 were rejected under 35 U.S.C. §103(a) as unpatentable over Ogata, et al. (U.S. Published Application US2002/0037462 A1, hereinafter *Ogata*). These rejections, as applied to the revised claims, are respectfully traversed.

Rejections under 35 USC §101

The claims, as now presented, are believed to embody statutory subject matter. In particular, the claims now describe functional changes or structures, including a tangible result as required under 35 U.S.C. §101.

Response

The tangible result is set forth in amended independent claims 1 and 17, "... outputting data comprising a thickness of at least one layer of the processed structure, said output data being indicative of the quality of said processing." Claim 13 already sets forth, "... analyzing the second measured data ... to ... determine a thickness of at least one layer ..., said determined thickness being indicative of the quality of said processing." It is respectfully submitted that this is a tangible result under the cited OG Notice from 22 Nov 05. Accordingly it is submitted that the rejections under 35 U.S.C. §101 are overcome.

Rejections Under 35 U.S.C. §103

The Examiner issued rejections of claims 1-12 and 17 under 35 U.S.C. §103(a) as unpatentable over *Ogata*. These rejections, as applied to the revised claims, are respectfully traversed.

Response

Reconsideration and withdrawal of the rejection are respectfully requested. Claim 1 sets forth:

"... providing first measured data including [parameters concerning the structure] ... applying spectral optical measurement ... after ... processing ... analyzing the [results] using the first measured data" (Claim 1; claims 13 and 17 similar.)

In contrast, *Ogata* discloses the so-called "feed-back control" technique. According to this technique, an article is measured in between different processing stages and measured data is used for adjusting working parameter(s) of processing tools used in those processing stages.

In particular, as appears from the description in par. 0013 of *Ogata*, *Ogata's* technique utilizes first and measured data portions which are independently obtained from the article after the development and etching processes are respectively applied to the article.

Ogata's use of first and measured data portions which are independently obtained from the article after the development provides specific functions. The etching processes enables control of operating parameters of the coating and/or development processes based on the first measured data and control of operating parameters of the development and/or etching processes based on the second measured data. Specifically, *Ogata* recites, at paragraph [0017]:

"... (d) measuring data of at least one of measurement items selected from, a reflection ratio and a film thickness of the base film, a film thickness of the resist film, a line width after the development, an accuracy that the base film matches with a resist pattern, and a defect on the surface after the development (e) amending a set value based on a measured data selected from at least for one of the parameters subject to the amendment ... when coating the resist solution [or] developing the substrate"

The technique of *Ogata* thus is different from that of the invention in that it does not disclose at least the following features of the invention:

- providing first measured data about the structure prior to specific processing;
 - applying optical measurements to the same structure after said specific processing;
- and
- analyzing the results of said optical measurements on the processed article using the first measured data.

These features are specifically set forth in Applicants' independent claims. As specifically described in the claims of the present invention, the inventive technique provides for improving measurement of those parameters of a structure which may be difficult or impossible to be directly measured (i.e., in the single measurement session).

Accordingly, claims 1 and 17 are neither shown nor suggested in *Ogata*.

Claims 2-12 depend from claim 1. Therefore, since claim 1 is distinguished over the prior art of record, these claims should also be allowable. Therefore, it is submitted that the above arguments with regard to Claim 1, as amended overcome the rejections of the dependent claims as well.

Applicant respectfully request that the Examiner withdraw the rejections and the case be passed to issuance.

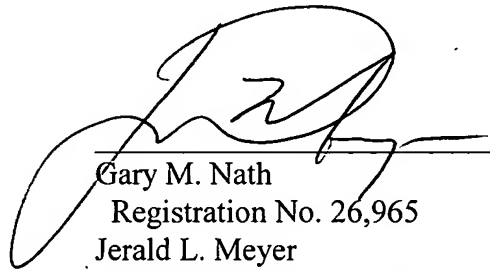
CONCLUSION

In light of the foregoing, Applicants submit that the application is in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner call the undersigned.

Respectfully submitted,
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